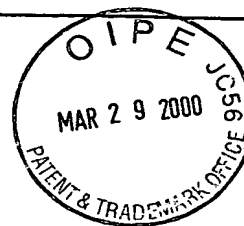


SEQUENCE LISTING



<110> Tucker, Kenneth D.
Tillmann, Ulrich F.

<120> MORAXELLA CATARRHALIS OMP21 POLYPEPTIDE, GENE SEQUENCE
AND USES THEREOF

<130> 7969-074

<140> 09/164,714

<141> 1998-10-01

<160> 21

<170> PatentIn Ver. 2.0

<210> 1

<211> 40

<212> PRT

<213> Moraxella catarrhalis

<400> 1

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1 5 10 15
Lys Ile Gly Gln Val Asp Ala Lys Gln Ile Asn Gly Lys Asn Thr Ala
20 25 30
Tyr Gly Ile Tyr Ala Gly Tyr Asn
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<213> Artificial Sequence

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<222> 6

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17

72

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17

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20

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 ggtcaagtag acgccaagca aatcaacggt aagaacaccg cttatggtat ttatgcaggt 180
 tataactttg accaaaattt tggcgtagaa cccgaatttg ttggttcaga cgccaaagaa 240
 tttaatgcag gcgtgagtc tgtaaaaggt gatgtgaagt cttttggtgc ttatggcaca 300
 tatcgctata acttcatcaa taccctattt tatgccaaagg gcaaattagg cattgctaag 360
 actaaagtag atgttaccag ccgtaatgca actacatact caaacaaaag cgacaaaacc 420
 agcctagcag gcggtggttg tggtggcttt aaaccattag caaatgtggg cgttgaagca 480
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 <213> Moraxella catarrhalis

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Ala	Met	Ser	Ala	Asn	Ala	Ala	Ile	Ser	Tyr	Gly	Asn	Ser	Ala	Asp	Ala
			20					25					30		
Gln	Pro	Tyr	Val	Gly	Ala	Lys	Ile	Gly	Gln	Val	Asp	Ala	Lys	Gln	Ile
		35					40					45			
Asn	Gly	Lys	Asn	Thr	Ala	Tyr	Gly	Ile	Tyr	Ala	Gly	Tyr	Asn	Phe	Asp
	50					55					60				
Gln	Asn	Phe	Gly	Val	Glu	Ala	Glu	Phe	Val	Gly	Ser	Asp	Ala	Lys	Glu
65					70					75					80

74

a

Phe Asn Ala Gly Val Ser Pro Val Lys Gly Asp Val Lys Ser Phe Gly
 85 90 95
 Ala Tyr Gly Thr Tyr Arg Tyr Asn Phe Ile Asn Thr Pro Phe Tyr Ala
 100 105 110
 Lys Gly Lys Leu Gly Ile Ala Lys Thr Lys Val Asp Val Thr Ser Arg
 115 120 125
 Asn Ala Thr Thr Tyr Ser Asn Lys Ser Asp Lys Thr Ser Leu Ala Gly
 130 135 140
 Gly Val Gly Val Gly Phe Lys Pro Leu Ala Asn Val Gly Val Glu Ala
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<210> 9
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<210> 10
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<220>
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<210> 14
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<212> DNA
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<210> 15
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<400> 15

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<400> 16

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<212> DNA
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<210> 18
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<212> DNA

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<223> Description of Artificial Sequence: DNA fragment

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aagaacaccg cctacggaat

80
